

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
28 July 2005 (28.07.2005)

PCT

(10) International Publication Number
WO 2005/068643 A2

(51) International Patent Classification⁷: **C12P 13/00**

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(21) International Application Number:
PCT/EP2005/000555

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(22) International Filing Date: 17 January 2005 (17.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
04075079.6 19 January 2004 (19.01.2004) EP

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: BIOCHEMICAL SYNTHESIS OF 6-AMINO CAPROIC ACID

(57) Abstract: The invention relates to biochemical synthesis of 6-amino caproic acid from 6-aminohex-2-enoic acid compound or from 6-amino-2-hydroxyhexanoic acid, by treatment with an enzyme having α,β -enolate reductase activity towards molecules containing an α,β -enolate group and a primary amino group. The invention also relates to processes for obtaining suitable genetically engineered cells for being used in such biotransformation process, and to precursor fermentation of 6-amino caproic acid from intermediates leading to 6-amino caproic acid. Finally, the invention relates to certain novel biochemically produced compounds, namely 6-aminohex-2-enoic acid, 6-aminohexanoic acid, as well as to caprolactam produced therefrom and to nylon-6 and other derivatives produced from such biochemically produced compounds or caprolactam.



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